OF E JOSE SE

SEQUENCE LISTING

RECEIVED

DEC 1 6 2002 TECH CENTER 1600/2900

<110> Pastan, Ira H.
 Bera, Tapan K.
 Kennedy, Paul E.
 Berger, Edward A.
 Barbas III, Carlos F.
 The Government of the United States of America
 as represented by The Secretary of the
 Department of Health and Human Services

<120> Recombinant Immunotoxin Directed Against the HIV-1 gp120 Envelope Glycoprotein

<130> 015280-356100US

<140> US 09/673,707

<141> 2001-01-11

<150> WO PCT/US99/12909

<151> 1999-06-08

<150> US 60/088,860

<151> 1998-06-11

<160> 13

<170> PatentIn Ver. 2.0

<210> 1

<211> 251

<212> PRT

<213> Artificial Sequence

<220>

<400× 1

Met Gln Val Gln Leu Glu Gln Ser Gly Ala Glu Val Lys Lys Pro Gly
1 5 10 15

Ala Ser Val Lys Val Ser Cys Gln Ala Ser Gly Tyr Arg Phe Ser Asn 20 25 30

Phe Thr Val His Trp Val Arg Gln Ala Pro Gly Gln Arg Phe Glu Trp

Met Gly Trp Ile Asn Pro Tyr Asn Gly Asn Lys Glu Phe Ser Ala Lys
50 55 60

Phe Gln Asp Arg Val Thr Phe Thr Ala Asp Thr Ser Ala Asn Thr Ala 65 70 75 80

Tyr Met Glu Leu Arg Ser Leu Arg Ser Ala Asp Thr Ala Val Tyr Tyr
85 90 95

Cys Ala Arg Val Gly Glu Trp Gly Trp Asp Asp Ser Pro Gln Asp Asn 100 105 110

B

. .

```
Tyr Tyr Met Asp Val Trp Gly Lys Gly Thr Thr Val Ile Val Ser Ser
Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Asp
Ile Glu Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly Glu
145
Arg Ala Thr Phe Ser Cys Arg Ser Ser His Ser Ile Arg Ser Arg Arg
                                    170
                165
Val Ala Trp Tyr Gln His Lys Pro Gly Gln Ala Pro Arg Leu Val Ile
                                185
His Gly Val Ser Asn Arg Ala Ser Gly Ile Ser Asp Arg Phe Ser Gly
                            200
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Thr Arg Val Glu Pro
                        215
Glu Asp Phe Ala Leu Tyr Tyr Cys Gln Val Tyr Gly Ala Ser Ser Tyr
                    230
                                        235
Thr Phe Gly Gln Gly Thr Lys Leu Glu Arg Lys
<210> 2
<211> 753
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial
      Sequence: 3B3V-H(Gly-4Ser)-3V-L nucleotide sequence
<220>
<221> CDS
<222> (1)..(753)
<400> 2
atgcaggttc agctcgagca gtctggggct gaggtgaaga agcctggggc ctcagtgaag 60
gtttcttgtc aggcttctgg atacagattc agtaacttca cggtccactg ggtgcgccag 120
gcccccggac agaggtttga gtggatggga tggatcaatc cttacaacgg aaacaaagaa 180
ttttcagcga agttccagga cagagtcacc tttaccgcgg acacatccgc gaacacagcc 240
tacatggaqt tgaggagcct cagatctgca gacacggctg tttattattg tgcgagagtg 300
ggggagtggg gttgggatga ttctccccag gacaattatt atatggacgt ctggggcaaa 360
gggaccacgg tcatcgtctc ctcaggcgga ggcggatcag gtggtggcgg atctggaggt 420
ggcggaagcg acatcgagct cacgcagtct ccaggcaccc tgtctctgtc tccaggggaa 480
agagccacct tctcctgtag gtccagtcac agcattcgca gccgccgcgt agcctggtac 540
cagcacaaac ctggccaggc tccaaggctg gtcatacatg gtgtttccaa tagggcctct 600
ggcatctcag acaggttcag cggcagtggg tctgggacag acttcactct caccatcacc 660
agagtggagc ctgaagactt tgcactgtac tactgtcagg tctatggtgc ctcctcgtac 720
acttttggcc aggggaccaa actggagagg aaa
<210> 3
<211> 15
<212> PRT
<213> Artificial Sequence
```

* 1 * * .

```
<223> Description of Artificial Sequence:linker
Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser
<210> 4
<211> 8
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence:C3 connector
     peptide
<400> 4
Ser Gly Gly Pro Glu Gly Gly Ser
<210> 5
<211> 81
<212> DNA
<213> Artificial Sequence
<223> Description of Artificial Sequence:T128 primer
aaacatatgc aggttcagct cgagcagtct ggggctgagg tgaagaagcc tggggcctca 60
gtgaaggttt cttgtcaggc t
<210> 6
<211> 72
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence:T129 primer
tccagatccg ccaccacctg atccgcctcc gcctgaggag acgatgaccg tggtcccttt 60
gccccagacg tc
<210> 7
<211> 78
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: T-144 primer
tcaggtggtg gcggatctgg aggtggcgga agcgacatcg agctcacgca gtctccaggc 60
accetgtete tgteteca
```

4

* * * * .

```
<210> 8
<211> 57
<212> DNA
<213> Artificial Sequence
<223> Description of Artificial Sequence:T131 primer
<400> 8
ggaagettte etetecagtt tggteeeetg gecaaaagtg tacgaggagg caccata
<210> 9
<211> 4
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence:carboxy
      terminal sequence of Pseudomonas exotoxin (PE)
      endoplasmic retention sequence
<400> 9
Lys Asp Glu Leu
  1
<210> 10
<211> 4
<212> PRT
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence:carboxy
      terminal sequence of Pseudomonas exotoxin (PE)
      endoplasmic retention sequence
<400> 10
Arg Glu Asp Leu
<210> 11
<211> 5
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence:native carboxy
      terminal sequence of Pseudomonas exotoxin (PE)
      endoplasmic retention sequence
<400> 11
Arg Glu Asp Leu Lys
  1
<210> 12
<211> 5
<212> PRT
<213> Artificial Sequence
```